

Anti-PORIN Antibody

Rabbit polyclonal antibody to PORIN

Catalog # AP60793

Product Information

Application	WB
Primary Accession	P21796
Other Accession	Q60932
Reactivity	Human, Mouse, Rat, Rabbit, Monkey, Pig, Bovine, SARS
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30773

Additional Information

Gene ID	7416
Other Names	VDAC; Voltage-dependent anion-selective channel protein 1; VDAC-1; hVDAC1; Outer mitochondrial membrane protein porin 1; Plasmalemmal porin; Porin 31HL; Porin 31HM
Target/Specificity	Recognizes endogenous levels of PORIN protein.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	VDAC1 (HGNC:12669)
Synonyms	VDAC
Function	Non-selective voltage-gated ion channel that mediates the transport of anions and cations through the mitochondrion outer membrane and plasma membrane (PubMed: 10661876 , PubMed: 11845315 , PubMed: 18755977 , PubMed: 30061676 , PubMed: 8420959). The channel at the outer mitochondrial membrane allows diffusion of small hydrophilic molecules; in the plasma membrane it is involved in cell volume regulation and apoptosis (PubMed: 10661876 , PubMed: 11845315 , PubMed: 18755977 , PubMed: 8420959). It adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV (PubMed: 10661876 , PubMed: 18755977 , PubMed: 8420959). The open state has a weak anion selectivity whereas the closed state is cation-selective

(PubMed:[18755977](#), PubMed:[8420959](#)). Binds various signaling molecules, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol (PubMed:[18755977](#), PubMed:[31015432](#)). In depolarized mitochondria, acts downstream of PRKN and PINK1 to promote mitophagy or prevent apoptosis; polyubiquitination by PRKN promotes mitophagy, while monoubiquitination by PRKN decreases mitochondrial calcium influx which ultimately inhibits apoptosis (PubMed:[32047033](#)). May participate in the formation of the permeability transition pore complex (PTPC) responsible for the release of mitochondrial products that triggers apoptosis (PubMed:[15033708](#), PubMed:[25296756](#)). May mediate ATP export from cells (PubMed:[30061676](#)). Part of a complex composed of HSPA9, ITPR1 and VDAC1 that regulates mitochondrial calcium-dependent apoptosis by facilitating calcium transport from the ER lumen to the mitochondria intermembrane space thus providing calcium for the downstream calcium channel MCU that directly releases it into mitochondria matrix (By similarity). Mediates cytochrome c efflux (PubMed:[20230784](#)).

Cellular Location

Mitochondrion outer membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Membrane raft; Multi-pass membrane protein. Note=Found in a complex with HSPA9 and VDAC1 at the endoplasmic reticulum- mitochondria contact sites. {ECO:0000250|UniProtKB:Q9Z2L0}

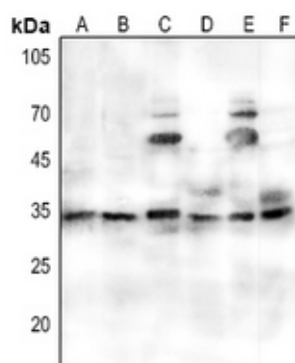
Tissue Location

Expressed in erythrocytes (at protein level) (PubMed:27641616). Expressed in heart, liver and skeletal muscle (PubMed:8420959).

Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human PORIN. The exact sequence is proprietary.

Images



Western blot analysis of PORIN expression in HEK293T (A), HeLa (B), mouse brain (C), mouse kidney (D), rat brain (E), rat kidney (F) whole cell lysates.

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